



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,744	09/04/2001	Shigeyoshi Yoshiida	0694-149	2676
7590	11/24/2004		EXAMINER	
NEC TOKIN CORPORATION BRADLEY N. RUBEN, PC 463 FIRST ST. SUITE 5A HOBOKEN, NJ 07030-1859				KOSLOW, CAROL M
		ART UNIT		PAPER NUMBER
		1755		

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

MM

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/914,744	YOSHIDA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	C. Melissa Koslow	1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11/13/03, 5/19/04 and 9/27/04.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3,4,6-9 and 12-19 is/are pending in the application.  
 4a) Of the above claim(s) 15-17 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,3,4,6-9,12,14,18 and 19 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/7/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

This action is in response to the amendments to the claims filed 27 September 2004, the amendments to the specification, title and abstract of 13 November 2003 and the arguments in the response of 13 November 2003 and 19 May 2004. The amendments to the specification, title and abstract of 13 November 2003 have overcome the objections to the abstract, title and disclosure. The amendments to the claims of 27 September 2004 have overcome the 35 USC 112 rejections. Applicant's arguments filed 13 November 2003 and 19 May 2004 over the art rejection have been fully considered but they are not persuasive.

Claims 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The bwr ranges of claims 18 and 19 are not found in the specification. The examples teach a bwr range of 148-191%. This range was obtained using the lowest bwr values taught in the examples. The exemplified range does not support the claimed ranges which include values less than 148% and greater than 191%. Accordingly these claims are new matter.

Applicants argue example 1 and example 6 supports the newly claimed ranges. Example 1 teaches a brw value of 148% and example 6 teaches a brw value of 191%. There is no teaching in the specification of any brw values below 148% and above 191%.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This claim is dependent on cancelled claim 5.

It is clear that claim 7 should depend from claim 6 not claim 5. This is because the amendment of 4 September 2001 changed the dependency of claim 7 from “claim 5 or 6” to “claim 5” and the amendment of 13 November 2003, which was next amendment in which claim 7 was amended, changed the dependency from “claim 6” to “claim 5”. Accordingly, the Examiner is treating claim 7 as if it was dependent from claim 6.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 6-9, 12 and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 09-181476.

Paragraphs 36-41 teach a thin film magnetic substance consisting of iron grains in a matrix composition consisting of Al and O. This thin film is produced by sputtering. The taught film has a DC specific resistance of about  $1000 \mu\Omega\bullet\text{cm}$ , a saturation magnetization of 8.82 kG and a maximum  $\mu''$  in the range of 0.9-1.1 GHz. The ratio of the taught saturation magnetization to the bulk saturation magnetization of Fe (22 kG) is about 40%, which falls within the claimed ranges. The DC specific resistance and maximum  $\mu''$  also fall within the claimed ranges. It is difficult to determine the brw from figure 6, but one of ordinary skill in the art would expect it to 148% or greater, absent any showing to the contrary, since all the other properties of the taught material falls within those claimed, the material has the same composition as the claimed material and it is produced by the same method. When the prior art and appellant both describe processes which are indistinguishable, then the products may also be assumed to be inherently indistinguishable. *In re Myers* 159 USPQ 339 (CCPA 1968); *In re Prindle* 132 USPQ 282

(CCPA 1962). Similar processes can reasonably be expected to yield products which inherently have the same properties. *In re Spada* 15 USPQ2d 1655 (CAFC 1990); *In re DeBlauwe* 222 USPQ 191; *In re Wiegand* 86 USPQ 155 (CCPA 1950). "Products of identical chemical composition can not have mutually exclusive properties. "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990). The reference teaches the claimed material.

Claims 1, 3, 4, 6-9, 12, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Han et al.

This article teaches producing a thin film of Fe distributed as granular grains in an alumina matrix by sputtering. This composition would have the claimed formula Fe-Al-O. Figure 6 shows that this material has an electric resistance in the range of about 100  $\mu\Omega\cdot\text{cm}$  up to about 1000  $\mu\Omega\cdot\text{cm}$  and a saturation magnetization of 10 to 15 kG. The ratio of the taught saturation magnetization to the bulk saturation magnetization of Fe (22 kG) is 45.5-68.2%. This range falls within the claimed ranges. The article does not teach the brw of the taught composite and the frequency at which the maximum  $\mu''$  occurs. The taught composite is produced by the same process as that claimed and therefore must have a brw and a frequency at which the maximum  $\mu''$  occurs that falls with the claimed ranges, absent any showing to the contrary. When the prior art and appellant both describe processes which are indistinguishable, then the products may also be assumed to be inherently indistinguishable. *In re Myers* 159 USPQ 339 (CCPA 1968); *In re Prindle* 132 USPQ 282 (CCPA 1962). Similar processes can reasonably be expected to yield products which inherently have the same properties. *In re Spada* 15 USPQ2d 1655 (CAFC

1990); *In re DeBlauwe* 222 USPQ 191; *In re Wiegand* 86 USPQ 155 (CCPA 1950). The reference teaches the claimed material.

Applicants argue the reference does not describe or appreciate the claimed maximum  $\mu''$  frequency range and then referred to figure 7 of the article. This figure measures the effective permeability, which is composed of  $\mu''$  and  $\mu'$ , for the Fe-Si<sub>3</sub>N<sub>4</sub> thin film. This does not show that the taught Fe-Al<sub>2</sub>O<sub>3</sub> thin film does not have a maximum  $\mu''$  that falls within the claimed range. While page 4501 does state Fe-Al<sub>2</sub>O<sub>3</sub> thin film fabricated from a high area fraction of ceramic pieces does not show good soft magnetic properties, it is silent as the effective permeability for the Fe-Al<sub>2</sub>O<sub>3</sub> thin film, when the area fraction of ceramic pieces is not high. Figures 4 and 6 teach the area fraction of alumina pieces for films that have an electric resistance in the range of about 100  $\mu\Omega\bullet\text{cm}$  up to about 1000  $\mu\Omega\bullet\text{cm}$  and a saturation magnetization of 10 to 15 kG is in the range of about 20-40%, which would not generally be considered a high fraction. There has been no showing that the taught films do not have a frequency at which the maximum  $\mu''$  occurs that falls with the claimed ranges. The rejection is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at (571) 272-1362.

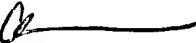
The fax number for all official communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 1755

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk  
November 22, 2004

  
C. Melissa Koslow  
Primary Examiner  
Tech. Center 1700